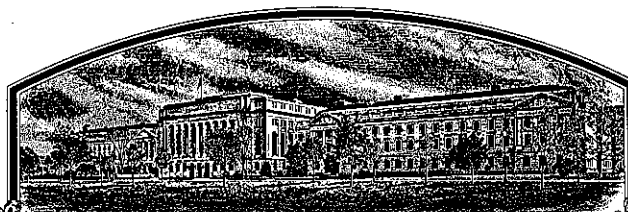


No.

8900118



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ferry-Morse Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOMATO

'Butte'

In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington, D.C.
this 28th day of February in
the year of our Lord one thousand nine
hundred and ninety-two.

Attest:

Kenneth Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward M. Dignan
Secretary of Agriculture

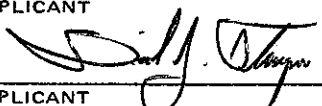
U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) FERRY-MORSE SEED COMPANY		2. TEMPORARY DESIGNATION FM 50189	3. VARIETY NAME BUTTE
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 555 CODONI P.O. BOX 4938 MODESTO, CALIFORNIA 95352		5. PHONE (Include area code) 209/579-7333	FOR OFFICIAL USE ONLY VPPO NUMBER 8900118
6. GENUS AND SPECIES NAME <u>Lycopersicon esculentum</u> Mill	7. FAMILY NAME (Botanical) Solanaceae		FILING DATE <u>Mar. 20, 1989</u> TIME <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.
8. KIND NAME Tomato	9. DATE OF DETERMINATION OCTOBER 1986		FEES RECEIVED AMOUNT FOR FILING \$ <u>1800.00</u> DATE <u>Mar. 20, 1989</u> AMOUNT FOR CERTIFICATE \$ <u>200.00</u> DATE <u>Feb. 7, 1992</u>
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION		12. DATE OF INCORPORATION 7 APRIL 1969	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION CALIFORNIA		13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS DAVID J. THOMPSON FERRY-MORSE SEED COMPANY P.O. BOX 4938 MODESTO, CALIFORNIA 95352 PHONE (Include area code): 209/579-7333	
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED			
a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)			
b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement.			
c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)			
d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of Variety.			
e. <input checked="" type="checkbox"/> Exhibit E, Statement of the Basis of Applicant's Ownership.			
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input checked="" type="checkbox"/> No			
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? N/A <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified	
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.? <input type="checkbox"/> Yes (If "Yes," give date) <input type="checkbox"/> No			
19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No			
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT 		DATE 8 MARCH 1989	
SIGNATURE OF APPLICANT		DATE	

VARIETY: Butte (formerly FM 50189)

EXHIBIT A: Origin and Breeding History of the Variety

Butte was developed, using the pedigree method of breeding, from a Ferry-Morse cross made at San Juan Bautista, CA in February 1977 between a Ferry-Morse inbred 10C-X753 MsD3B and M70-1-2-1-MsA and F-M selection of a U.C. Davis lines. The inbred 10C-X753 MsD3B was developed from a cross of UC134 with Saladette from Texas A&M.

F1 plants were medium sized, determinate with medium size deep round fruit exhibiting uniform green color while immature. The fruit load was impressive. F2 seeds from the six F1 plants were harvested from field row # 52957 in October 1977 at SJB.

Most F2 plants in 1978 had very good crops of firm, medium sized fruit in a heat tolerance trial near Fresno, CA. Segregation occurred for fruit shape, maturity, and fruit set as well as vine & foliage type. F3 seeds were saved from three selected plants in field row # 16801 in September.

F3 generation progenies of the three selected plants were again grown in the heat tolerance trial near Fresno. The #1 selection set poorly, the #2 selection exhibited heavy fruit set with good earliness, and the #3 selection was intermediate in fruit set. F4 seeds were massed from 5 selected plants in the second progeny row # 18291 in September 1979. There was some segregation for fruit shape but the massing of seeds was done for ease of handling and to obtain sufficient seed for more extensive trials.

The F4 generation plants from the massed lot set fruit well in the 1980 heat tolerance trial near Fresno. It was early maturing and with slight variation for fruit shape. F5 seeds of seven selected plants with easily removed fruit were massed in field row # 20052 in September 1980.

The F5 generation exhibited medium-small plant size with deep round to egg shaped fruit of good firmness. The earliness and concentration of fruit set were very good. F6 seeds were saved from three selected plants in field row # 84073 in October 1981 at SJB.

The F6 generation plants looked very good in our heat tolerance trial near Fresno. The progeny of selection #1 had very good fruit set with firm, easy stemming fruit. F7 seeds were massed from three selected plants in field row # 24320 in September 1982.

In 1983 and 1984 at San Juan Bautista the F7 and F8 generations were evaluated for fruit quality and overall performance. The fruit set and quality were excellent each year with low pH, high interior color, thick pericarp walls, good soluble solids, and good fruit firmness. Uniformity was very good so seed were massed from all 35 plants in row # 99658 in October 1983 and row # 50189 in October 1984.

VARIETY: Butte (formerly FM 50189)

EXHIBIT B: Novelty Statement

Butte is most similar to Sureset which is related to the female parent of Butte. It can be distinguished from Sureset on the basis of leaf morphology and days from seeding to 50% flower. Butte has type 2 leaf morphology with moderately bipinnate leaves. Sureset has type 3 leaf morphology with essentially no bipinnate leaves.

The number of days from seeding to 50% of the plants with 1 open flower was determined in Wisconsin near Sun Prairie and in California at San Juan Bautista. At least 50 plants were used for each variety at each location each year. The data are as follows:

<u>Comparison</u>	<u>BUTTE</u>	<u>Sureset</u>	<u>UC82B</u>
Wis/86	54 days	52 days	57 days
Wis/87	53 "	52 "	53 "
SJB/86	59 "	53 "	55 "
SJB/87	55 "	48 "	51 "
Greenhouse			
SJB/87	58 days	54 days	56 days
SJB/88	66 "	60 "	66 "
ave of 6	57.5 days	53.2 days	56.3 days

Sureset was consistently earlier than Butte or UC82B. In California Sureset averaged 6 days earlier than Butte on the basis of 50% plants to flower while UC82B was intermediate. Butte consistently flowers one node later than Sureset which help to explain its later 1 st flower date.

Butte can easily be distinguished from UC82B and VF6203 on the basis of vine spread of the mature plant near harvest. At least 15 plants were measured for each variety at each location.

<u>Comparison</u>	<u>Butte</u>	<u>Sureset</u>	<u>UC82B</u>	<u>VF6203</u>
Wis/88	91 cm	95 cm	116 cm	137 cm
SJB/88	54 cm	62 cm	78 cm	83 cm
average	73 cm	79 cm	97 cm	110 cm

The vine spread of Butte was obviously smaller than UC82B or VF6203 but similar to Sureset. Also in fields where UC82B and VF6203 show considerable puffy (hollow) fruit, Butte is essentially free of puffy fruit.

In 1985 this lot (#50189-Ms/84) was placed in a variety/yield trial at San Juan Bautista along with UC 82B, VF6203, Peelmech, and Colusa. FM 50189 had lower yield than most other varieties in the trial due to its small vine. (Twin rowing in subsequent trials gave very acceptable yields.) It was one of the earliest varieties in the trial and had the best interior fruit color with no puffy fruit. The pH was similar to UC82B and Colusa. The fruit size was intermediate between VF6203 and UC82B.

Seed was harvested from 200 plants in 1985 at San Juan Bautista for increase and cannery trials. A stock seed increase of 4000 plants was harvested in October of 1986 at San Juan Bautista. No obvious off type plants or fruit were observed in either increase and the variety appeared to be very uniform and stable. Subsequent trials of these seed lots were also uniform with no obvious segregation.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Tomato)

OBJECTIVE DESCRIPTION OF VARIETY
TOMATO (*Lycopersicon esculentum* Mill.)

NAME OF APPLICANT(S) FERRY MORSE SEED COMPANY	TEMPORARY DESIGNATION FM 50189	VARIETY NAME BULITE
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) 555 CODONI, P.O. BOX 4938, MODESTO, CA 95352-4938		FOR OFFICIAL USE ONLY PVPO NUMBER 8900118

Choose responses for the following characters which best fit your variety. Complete this form as fully as possible for best characterization of the variety. When a single quantitative value is requested (e.g., fruit weight), your answer should be the mean of an adequate-sized, unbiased sample of plants. Use leading zeroes when necessary (e.g., 0 9 or 0 8 1, etc.). The applicant variety should be compared with at least one well-known standard check variety of the same type (see list of recommended check varieties below), and grown in the same trials. The characters on this form should be described from plants grown under normal conditions of culture for the variety. Indicate by a check whether trial data are from greenhouse _____ or field X plantings. Trials direct-seeded _____ or transplanted X; staked _____ or unstaked X. Give locations and dates of seeding and transplanting here: SAN JUAN BAUTISTA, CA seeded 4/2/86 transplanted 5/13/86
SAN JUAN BAUTISTA, CA seeded 4/1/87 transplanted 5/5/86

COMPARISONS SHOULD BE MADE TO ONE OR MORE CHECK VARIETIES IN THE FOLLOWING LIST, IF AT ALL POSSIBLE. ENTER THE NUMBER OF THE CHECK IN BOXES WHERE IDENTITY OF CHECK IS REQUESTED.

- | | | | |
|------------------|-----------------------|---------------|------------------------------------|
| 1 = Ace 55 VF | 7 = Homestead 24 | 13 = Red Rock | 19 = VF 134 |
| 2 = Campbell 37 | 8 = Marglobe | 14 = Roma VF | 20 = US 28 |
| 3 = Chico III | 9 = Murietta | 15 = Rutgers | 21 = VF 145 B 7879 |
| 4 = Flora Dade | 10 = New Yorker | 16 = Sunray | 22 = Other (Specify) <u>VF6203</u> |
| 5 = Florida MH-1 | 11 = Ohio MR-13 | 17 = Tropic | |
| 6 = Heinz 1350 | 12 = Red Cherry Large | 18 = UC 82 | |

1. SEEDLING:

- 2 Anthocyanin in hypocotyl of 2-15 cm. seedling: 1 = Absent 2 = Present 1 Habit of 3-4 week old seedling: 1 = Normal 2 = Compact

2. MATURE PLANT (at maximum vegetative development):

- 2 Growth: 1 = Indeterminate 2 = Determinate Cm. Height
- 3 Form: 1 = Lax, open 2 = Normal 3 = Compact 4 = Dwarf 5 = Brachytic
- 1 Size of canopy (compared to others of similar type): 1 = Small 2 = Medium 3 = Large
- 2 Habit: 1 = Sprawling (decumbent) 2 = Semi-erect 3 = Erect ('Dwarf Champion')

3. STEM:

- 2 Branching: 1 = Sparse ('Brehm's Solid Red', 'Fireball') 2 = Intermediate ('Westover') 3 = Profuse ('UC 82')
- Branching at cotyledonary or first leafy node: 1 = Present 2 = Absent
- 3 No. of nodes below the first inflorescence: 1 = 1-4 2 = 4-7 3 = 7-10 4 = 10 or more
- 2 No. of nodes between early (1st - 2nd, 2nd - 3rd) inflorescences. No. of nodes between later-developing inflorescences.
- 3 Pubescence on younger stems: 1 = Smooth (no long hairs) 2 = Sparsely hairy (scattered long hairs) 3 = Moderately hairy 4 = Densely hairy or wooly

4. LEAF (mature leaf beneath the 3rd inflorescence):

- 1 Type: 1 = Tomato 2 = Potato ('Trip-L-Crop') 2 Morphology (choose illustration on pg. 5 of this form that is most similar)
- 3 Margins of major leaflets: 1 = Nearly entire 2 = Shallowly toothed or scalloped 3 = Deeply toothed or cut, esp. towards base
- 3 Marginal rolling or wiltiness: 1 = Absent 2 = Slight 3 = Moderate 4 = Strong
- 2 Onset of leaflet rolling: 1 = Early-season 2 = Mid-season 3 = Late season

89001185

4. LEAF (mature leaf beneath the 3rd inflorescence -- continued):

- 1 Surface of major leaflets: 1 = Smooth 2 = Rugose (bumpy or veiny)
- 2 Pubescence: 1 = Smooth (no long hairs) 2 = Normal 3 = Hirsute 4 = Woolly

5. INFLORESCENCE (make observations on 3rd inflorescence):

- 1 Type: 1 = Simple 2 = Forked (2 major axes) 3 = Compound (much branched)
- 0 6 Number of flowers in inflorescence, average
- 1 Leafy or "running" inflorescences: 1 = Absent 2 = Occasional 3 = Frequent

6. FLOWER:

- 1 Calyx: 1 = Normal, lobes awl-shaped 2 = Macrocalyx, lobes large, leaflike 3 = Fleshy
- 1 Calyx-lobes: 1 = Shorter than corolla 2 = Approx. equalling corolla 3 = Distinctly longer than corolla
- 1 Corolla color: 1 = Yellow 2 = Old gold 3 = White or tan
- 1 Style pubescence: 1 = Absent 2 = Sparse 3 = Dense
- 1 Anthers: 1 = All fused into tube 2 = Separating into 2 or more groups at anthesis
- 1 Fasciation (1st flower of 2nd or 3rd inflorescence): 1 = Absent 2 = Occasionally present 3 = Frequently present

7. FRUIT (3rd fruit of 2nd or 3rd cluster): For the first 5 characters below, match your variety with the most similar illustration on pg. 5 of this form.

- 4 Typical fruit shape: 1 Shape of transverse section: 1 Shape of stem end:
- 2 Shape of blossom end: 1 Shape of pistil scar:

- 1 Abscission layer: 1 = Present (pedicellate) 2 = Absent (jointless) 1 Point of detachment of fruit at harvest: 1 = At pedicel joint 2 = At calyx attachment

1 2 mm length of pedicel (from joint to calyx attachment)

0 5 5 mm length of mature fruit (stem axis) 0 5 8 mm length, check var. no. 2 2

0 5 0 mm diameter of fruit at widest point 0 5 0 mm diameter, check var. no. 2 2

0 7 4 g weight of mature fruit 0 7 9 g weight, check var. no. 2 2

- 1 No. of locules: 1 = Two and three = Three and four 3 = Five or more
- 1 Fruit surface: 1 = Smooth 2 = Slightly rough 3 = Moderately rough or ribbed
- 1 Fruit base color (mature-green stage): 1 = Light green ('Lanai', 'VF145-F5') 2 = Light gray-green ('Westover') 3 = Apple or medium green ('Heinz 1439 VF') 4 = Yellow green 5 = Dark green

1 Fruit pattern (mature-green stage): 1 = Uniform green 2 = Green-shouldered 3 = Radial stripes on sides of fruit

Shoulder color if different from base: 1 = Dark green 2 = Grey green 3 = Yellow-green

5 Fruit color, full-ripe: 1 = White 2 = Yellow 3 = Orange 4 = Pink 5 = Red 6 = Brownish 7 = Greenish 8 = Other (Specify)

3 Flesh color, full-ripe: 1 = Yellow 2 = Pink 3 = Red/Crimson 4 = Orange 5 = Other (Specify)

1 Flesh color: 1 = Uniform 2 = With lighter and darker areas in walls

2 Locular gel color of table-ripe fruit: 1 = Green 2 = Yellow 3 = Red

2 Ripening: 1 = Blossom-to-stem end 2 = Uniform

7. FRUIT (3rd fruit of 2nd or 3rd cluster): Continued

<input type="text" value="2"/>	Ripening:	1 = Inside out	2 = Uniformly	3 = Outside in	<input type="text" value="1"/>	Stem scar size:	1 = Small ('Roma')
<input type="text" value="2"/>	Epidermis color:	1 = Colorless	2 = Yellow			2 = Medium ('Rutgers')	3 = Large
<input type="text" value="1"/>	Epidermis:	1 = Normal	2 = Easy-peel		<input type="text" value="1"/>	Core:	1 = Coreless (absent or smaller than 6x6 mm)
<input type="text" value="3"/>	Epidermis texture:	1 = Tender	2 = Average	3 = Tough		2 = Present	
<input type="text" value="3"/>	Thickness of pericarp	<input type="text" value="3"/>			Thickness of pericarp, check var. no.		
		1 = Under 3 mm	2 = 3-6 mm	3 = 6-9 mm	4 = Over 9 mm	<input type="text" value="2"/>	<input type="text" value="2"/>

8. RESISTANCE TO FRUIT DISORDERS (Use code: 0 = Unknown, 1 = Susceptible, 2 = Resistant)

<input type="text" value="0"/>	Blossom end rot	<input type="text" value="2"/>	Catface	<input type="text" value="2"/>	Fruit pox	<input type="text" value="2"/>	Zippering
<input type="text" value="0"/>	Blotchy ripening	<input type="text" value="2"/>	Cracking, concentric	<input type="text" value="2"/>	Gold fleck	<input type="text" value=""/>	Other (Specify)
<input type="text" value="0"/>	Bursting	<input type="text" value="2"/>	Cracking, radial	<input type="text" value="0"/>	Graywall		

9. DISEASE AND PEST REACTION (Use code: 0 = Not tested, 1 = Susceptible, 2 = Resistant). NOTE: If claim of novelty is based wholly or in substantial part upon disease resistance, trial data should be appended. These should specify the method of testing, the reaction of the application variety, and reaction of well-known check varieties grown in the trial (identified by name).

VIRAL DISEASES:

<input type="text" value="0"/>	Cucumber mosaic	<input type="text" value="0"/>	Tobacco mosaic, Race 0	<input type="text" value="0"/>	Tobacco mosaic, Race 2 ²
<input type="text" value="0"/>	Curly top	<input type="text" value="0"/>	Tobacco mosaic, Race 1	<input type="text" value="0"/>	Tomato spotted wilt
<input type="text" value="0"/>	Potato-Y virus	<input type="text" value="0"/>	Tobacco mosaic, Race 2	<input type="text" value="0"/>	Tomato yellows
<input type="text" value=""/>	Other virus (Specify) _____				

BACTERIAL DISEASES:

<input type="text" value="0"/>	Bacterial canker (<i>Corynebacterium michiganense</i>)	<input type="text" value="0"/>	Bacterial spot (<i>Xanthomonas vesicatorum</i>)
<input type="text" value="0"/>	Bacterial soft rot (<i>Erwinia carotovora</i>)	<input type="text" value="0"/>	Bacterial wilt, (<i>Pseudomonas solanacearum</i>)
<input type="text" value="0"/>	Bacterial speck (<i>Pseudomonas tomato</i>)	<input type="text" value=""/>	Other bacterial disease (Specify) _____

FUNGAL DISEASES:

<input type="text" value="0"/>	Anthrachnose (<i>Colletotrichum</i> spp.)	<input type="text" value="0"/>	Leaf mold, Race 1 (<i>Cladosporium fulvum</i>)
<input type="text" value="1"/>	Brown root rot or corky root, (<i>Pyrenochaeta lycopersici</i>)	<input type="text" value="0"/>	Leaf mold, Race 2
<input type="text" value="0"/>	Collar rot or stem canker, (<i>Alternaria solani</i>)	<input type="text" value="0"/>	Leaf mold, Race 3
<input type="text" value="0"/>	Early blight defoliation, (<i>Alternaria solani</i>)	<input type="text" value=""/>	Leaf mold, other races (Specify) _____
<input type="text" value="2"/>	Fusarium wilt, Race 1, (<i>F. oxysporum</i> f. <i>lycopersici</i>)	<input type="text" value="0"/>	Nailhead spot (<i>Alternaria tomato</i>)
<input type="text" value="1"/>	Fusarium wilt, Race 2	<input type="text" value="1"/>	Septoria leafspot (<i>S. lycopersici</i>)
<input type="text" value="0"/>	Fusarium wilt, Race 3	<input type="text" value="0"/>	Target leafspot (<i>Corynespora casicola</i>)
<input type="text" value="2"/>	Gray leaf spot (<i>Stemphylium</i> spp.)	<input type="text" value="2"/>	Verticillium wilt, Race 1 (<i>V. albo-atrum</i>)
<input type="text" value="0"/>	Late blight, Race 0, (<i>Phytophthora infestans</i>)	<input type="text" value="0"/>	Verticillium wilt, Race 2
<input type="text" value="0"/>	Late blight, Race 1	<input type="text" value=""/>	Other fungal disease _____
		<input type="text" value=""/>	Other fungal disease _____

9. DISEASE AND PEST REACTION (Use code: 0 = Not tested, 1 = Susceptible, 2 = Resistant - Continued)

INSECTS AND PESTS:

<input type="checkbox"/> 0	Colorado potato beetle (<i>Leptinotarsa decemlineata</i>)	<input type="checkbox"/> 0	Tomato hornworm (<i>Manduca quinquemaculata</i>)
<input type="checkbox"/> 1	Southern root knot nematode (<i>Meloidogyne incognita</i>)	<input type="checkbox"/> 0	Tomato fruitworm (<i>Heliothis zea</i>)
<input type="checkbox"/> 0	Spider mites (<i>Tetranychus</i> spp.)	<input type="checkbox"/> 0	Whitefly (<i>Trialeurodes vaporariorum</i>)
<input type="checkbox"/> 0	Sugar beet army worm (<i>Spodoptera exigua</i>)	<input type="checkbox"/>	Other (Specify) _____
<input type="checkbox"/> 0	Tobacco flea beetle (<i>Epitrix hirtipennis</i>)		

POLLUTANTS:

<input type="checkbox"/> 0	Ozone	<input type="checkbox"/> 0	Sulfur dioxide	<input type="checkbox"/>	Other (Specify) _____
----------------------------	-------	----------------------------	----------------	--------------------------	-----------------------

10. CHEMISTRY AND COMPOSITION OF FULL-RIPE FRUITS: Suggested test methods may be found in "Tomato Products," 5th ed., National Canners Assn. Bull. 27-L. Please specify test methods or give a reference to methods used. Fill in table below with values for the new variety and for at least one well-known check variety of similar type grown in the same trial. Specify names or numbers of check varieties.

	SUBMITTED VARIETY	Check Variety UC82B	Check Variety VF6203	Check Variety Sureset
pH	SAN JUAN BAUTISTA CA 1986/1987	4.34/4.34	4.36/4.37	4.46/4.41
Titrate acidity, as % citric				
Total solids (dry matter, seeds and skin removed)				
Soluble solids, as °Brix	SAN JUAN BAUTISTA	4.8/4.7	4.2/4.0	4.6/4.8
				5.0/4.4

11. PHENOLOGY: Express length of developmental stages either as calendar days or as heat units (growing degree days), in degrees Celsius. If heat units are used, indicate the base temperature used in their calculation here _____ °C. See paper by Warnock under "References" for method. Give comparative data for at least one check variety; identify checks by name or by number from table on page 1.

	APPLICATION VARIETY	Check variety UC82B	Check variety VF6203	Check variety Sureset
Seeding to 50% flower (1 open flower on 50% of plants)	SAN JUAN BAUTISTA	59/55 days	55/51 days	59/51 days
				53/48 days
Seed to once-over harvest (if applicable)				

<input type="checkbox"/> 4	Fruiting season:	1 = Long ('Marglobe')	2 = Medium ('Westover')	3 = Short, concentrated ('VF 145')
		4 = Very concentrated ('UC 82')		
<input type="checkbox"/> 2	Relative maturity in areas tested:	1 = Early	2 = Medium early	3 = Medium
		4 = Medium late	5 = Late	6 = Variable (if relative maturity is known to differ by location or environment, please explain on separate sheet).

12. ADAPTATION: If more than one category applies, list all in rank order.

<input type="checkbox"/> 0	<input type="checkbox"/> 1	Culture:	1 = Field	2 = Greenhouse	
<input type="checkbox"/> 0	<input type="checkbox"/> 0	Principal use(s):	1 = Home garden	2 = Fresh market	3 = Whole-pack canning
	<input type="checkbox"/> 4		4 = Concentrated products	5 = Other (Specify) _____	
<input type="checkbox"/> 2		Machine harvest:	1 = Not adapted	2 = Adapted	
<input type="checkbox"/> 0	<input type="checkbox"/> 9	Regions to which adaptation has been demonstrated:	1 = Northeast	2 = Mid Atlantic	3 = Southeast
	<input type="checkbox"/> 1		4 = Great Plains	5 = South-central	4 = Florida
	<input type="checkbox"/> 1		6 = California: Sacramento and Upper San Joaquin Valley	7 = Intermountain West	8 = Northwest
			10 = California: Coastal areas	11 = California: Southern San Joaquin Valley & deserts	

VARIETY: Butte (formerly FM50189)

EXHIBIT D: Additional Description of the Variety.

Butte is a medium early, machine harvestable processing tomato with resistance to Verticillium Wilt and Fusarium Wilt race 1 and with coarse curly foliage on a compact vine which requires twin row planting for optimum yields. The fruit is uniform green while immature, and is medium sized, firm and egg shaped with medium high solids and medium low pH at maturity. The interior color is excellent.

Butte has similar pH to UC82B and Colusa but significantly low pH than VF6203 or Peelmech. Butte has similar soluble solids to VF6203 and Peelmech but significantly higher than UC82B. Maturity of Butte for over harvest in Woodland, California is about 5 days earlier than VF6203 and 15 days earlier than UC82B.

EXHIBIT "E"
Plant Variety Protection Application
No:.....

ASSIGNMENT

I, .Court Nichols....., agree and hereby do
transfer and assign to FERRY-MORSE SEED COMPANY all my rights,
title, and interest in and to that certain variety namely,
.....BUTTE (FORMERLY FM50189), for which application for
Plant Variety Protection Certificate has been filed. This
agreement shall be binding on my administrators, successors, and
assigns.

In Witness Whereof, I have executed this agreement this
day 3..... of .March....., 19 .89.....

BREEDER

...*Courtland B. Nichols*.....

EXHIBIT "E"

Plant Variety Protection Application

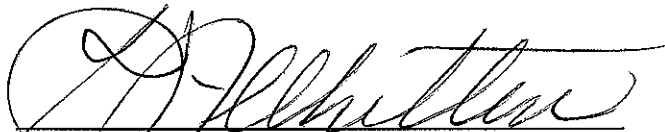
No: 8900118

STATEMENT OF OWNERSHIP

I, George R. Allbritten, Secretary of Ferry-Morse Seed Company do hereby certify that Ferry-Morse Seed Company is the breeder and owner of that certain variety namely, Tomato, Butte

for which an application for Plant Variety Protection has been filed.

In witness whereof I have executed this statement of ownership and caused the Ferry-Morse Corporate Seal to be affixed this 27 day of April, 1990.


Secretary

SEAL